



June 15, 2017

The Honorable Ajit Pai  
Chairman  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, D.C. 20554

**RE: WC Docket No. 17-84**

Dear Chairman Pai:

Thank you for the opportunity to comment on the Federal Communications Commission's ("Commission") Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment ("NPRM") entitled, *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*. Puget Sound Energy ("PSE") shares the Commission's goal of ensuring that communities across the Puget Sound region, Washington State, and the nation have access to high-speed Internet services, and we look forward to working with the Commission to achieve this goal.

As PSE stated in its 2010 Comments to the Commission (WC Docket No. 07-245), "we recognize that electric utilities, which maintain significant infrastructure that can be utilized to effectuate greater broadband penetration, have a vital role to play" in achieving the Commission's objectives. We understand that delays in the deployment of broadband and next-generation networks and services are prevalent throughout the nation and that both pole owning utilities and telecommunication companies share responsibility for those delays. Accordingly, PSE remains committed to working with the Commission to resolve issues that exist in the joint-use space today and has partnered with the Edison Electric Institute ("EEI"), the Utilities Technology Council ("UTC"), and the *Coalition of Concerned Utilities* to provide comprehensive, industry-wide comments on the NPRM to the Commission.

The questions posed by the Commission in the NPRM are thoughtful and demonstrate a significant interest in understanding the current state of joint-use. Independently, in the attached comments, PSE has attempted to share the experience in our service territory with joint-use and telecommunication companies that have attached, or requested attachment, to PSE owned poles.

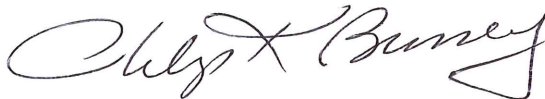
As one of the nation's leading utilities in terms of supporting and encouraging collocation of wireless facilities on our infrastructure, PSE believes that proposals to accelerate broadband deployment through new rules focused largely on pole owners that shorten make-ready timelines or reduce attachment rates – such as those raised in the Commission's questions – would likely have little impact on the speed to which telecommunication companies expand broadband services. The proposals do not address the root cause of many documented delays, which is the routine inability of telecommunication companies to

perform make-ready work in a timely manner, perform work in compliance with code, and correct out of compliance with code attachments at cost.

We are also concerned by the Commission's questions on expedited copper retirement and related proposals to dramatically reduce timeframes for system upgrades. Many utilities, including PSE, employ low speed analog data circuits for electric and gas remote terminal unit ("RTU") connections into their energy generation and storage, transmission and distribution control systems. While committed to upgrading nearly half of PSE's existing RTUs to new Internet Protocol (IP) networks prudently over the next five years, this conversion is not as simple as replacing hardware – like a modem. Upgrading to IP may, and frequently does, require replacement of an entire control system in order to meet North American Electric Reliability Corporation (NERC) critical infrastructure protection cyber security standards.

PSE thanks the Commission for its consideration of our comments and welcomes the opportunity to provide additional information or answer any questions that the Commission may have. We look forward to working with the Commission on a constructive basis to bring broadband and next-generation networks and services to residents in Washington State and across the nation without sacrificing electricity reliability and safety.

Sincerely,

A handwritten signature in black ink, appearing to read "Philip K. Bussey". The signature is fluid and cursive, with a large, stylized "P" and "B".

Philip K. Bussey  
Senior Vice President & Chief Customer Officer  
Puget Sound Energy

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Accelerating Wireline Broadband Deployment by	)	WC Docket No. 17-84
Removing Barriers to Infrastructure Investment	)	

**Comments of Puget Sound Energy, Inc.**

**I. INTRODUCTION**

Puget Sound Energy, Inc. (“PSE”) provides this comment in response the Federal Communications Commission’s (“Commission”) **Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment (“NPRM”) entitled, *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*** (“NPRM”). In these comments PSE explains the impacts that the proposed regulations will have on the company and the industry in general.

As Washington State’s largest privately-owned gas and electric utility, PSE and its predecessors have served the Puget Sound region for more than 135 years. Today, PSE delivers safe, reliable and affordable energy to approximately 1.1 million electric customers and 790,000 natural gas customers across ten counties in Western Washington. PSE business units are composed of gas distribution and storage, electric distribution, transmission and generation – including wind, solar, hydro and thermal generation both in and outside of its customer service area.

PSE supports the Commission’s goal to accelerate broadband deployment and thanks the Commission for the opportunity to respond to the NPRM. We do have concerns over the effect that some of the Commission’s proposals may have in our service territory, and have included comments on the Commission’s pole attachment reform proposals, copper retirement processes, and Section 214(a) discontinuance processes. In these Comments, PSE attempts to convey a sense of the current state of joint-use throughout our service territory using data and real experiences from the field. PSE believes that providing the perspective of a utility company with decades of joint-use experience will benefit the Commission as it discusses all aspects of broadband deployment and debates the underlying issues that exist in joint-use today.



## II. POLE ATTACHMENT REFORMS

In the NPRM, the Commission noted that the primary objective of the rulemaking was to “[...] accelerate deployment of next-generation networks and services by removing barriers [...]”,<sup>1</sup> with perhaps a particular interest in ensuring deployment to areas currently underserved. As one of the nation’s leading utilities in terms of supporting and encouraging collocation of wireless facilities on our infrastructure, PSE believes that proposals to accelerate broadband deployment through new rules that shorten make-ready<sup>2</sup> timelines or reduce attachment rates – such as those raised in the Commissions questions – would likely have little impact on the speed to which telecommunication companies expand broadband services. The proposals do not address the root cause of many delays, which is the routine inability of telecommunication companies to perform make-ready work in a timely manner, perform work in compliance with code, and correct out of compliance with code attachments at cost.

Telecommunication companies have argued for years that utility companies are the primary impediment to deploying of their services. Whenever asked why they are not serving rural or other underserved areas, they point to the pole owning utility and claim high make-ready costs and high pole attachment fees as a primary barrier to deployment. This is not the case in PSE’s service territory. PSE understands that speed of deployment is critical for competing telecommunication companies; and pole owning utilities have not always recognized the importance of this. In comments<sup>3</sup> to the Commission on the 2011 Rulemaking, PSE supported the timeframes proposed as reasonable and achievable. PSE still supports that position, even though the company sometimes struggles to meet those timeframes due in part to the large increase in scope of work and to a similarly large decrease in the quality of execution on the part of attaching Communication Companies.<sup>4</sup>

In practice throughout PSE service territory, make-ready work is generated when there is insufficient vertical space on a pole to accommodate a new attachment. The work normally consists of rearranging existing attachments to more efficiently utilize the existing space on the pole. Yet, in rural or underserved areas there is little need for make-ready work. Poles in these areas only have installations belonging to the utility company, with, perhaps, only a phone company cable attached also. The vast majority of make-ready work takes place in areas having high population densities; areas of high interest to Communication Companies. In these areas utility poles have multiple entities attached or applying to attach, which drives the need for vertical space, which then drives make-ready work.

Make-ready work can occur in both the Communication Space<sup>5</sup> and in the Supply Space<sup>6</sup>. Most utilities do not involve themselves in Communication Space make-ready work. Work performed in this area is the purview of the telecommunication companies - both existing and new attaching entities. PSE does however regularly perform make-ready work in the Supply Space, primarily consisting of raising our own facilities to create sufficient space for a new attachment.

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<sup>1</sup> *Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment*, WC Docket 17-84, para. 1.

<sup>2</sup> See NPRM, footnote 6.

<sup>3</sup> See *Comments from Puget Sound Energy*, WC Docket No. 07-245; <https://ecfsapi.fcc.gov/file/7020702052.pdf>

<sup>4</sup> Wireless and wireline telecommunications companies, and applicants for attaching to PSE poles and towers.

<sup>5</sup> The usable space on a pole below the communications workers safety zone and above the vertical space for meeting ground clearance requirements under the National Electrical Safety Code (“NESC”), Section 235C4.

<sup>6</sup> An area on the power pole regulated by NESC regulations for worker qualifications and clearances.



At least in our service territory, the majority of make-ready work is performed by PSE due to the inability of Communication Companies to rearrange their existing facilities, or their lack of priority to do so in a timely manner.

## **1. Speeding Access to Poles**

### ***Shortening Existing Application Review Timeframes is Unlikely to Improve Utility Review and Approval Times as it Does Not Address the Primary Reasons that Utilities Struggle to Meet Them Now: Application Quality.***

**Errors on Applications:** PSE has a Washington State regulatory requirement<sup>7</sup> to review requests for over lashing within 15 days and to review new attachment requests within 45 days (the same as the FCC).<sup>8</sup> On average PSE is able to complete its review of applications for over lash and new attachments 80% of the time despite significant errors on each application<sup>9</sup> as observed in our service territory. Among the most common errors are: missing or incorrect pole ID numbers, missing information of existing attachments and their elevations on the pole, insufficient information on the type of attachment, and poles which require work being left off an application.<sup>10</sup> Perhaps of greater concern is the observed practice of applicants identifying transmission poles as distribution poles; even cropping photos of poles to only show the distribution portion of the pole. PSE clearly views this as an attempt to avoid required analysis.

If timelines were shortened, and application quality is not improved, PSE will have to expend additional resources and increase O&M costs in order to support Communication Companies' business objectives; instead of our own safety and reliability objectives. Added costs shift the burden from Communication Companies to utility ratepayers or investors. Due to the cyclic nature of Communication Companies' deployments, the most likely response would be to turn to outside service providers to perform this task; a move which would increase the cost to the Communication Companies.

**Inefficiencies with Pole Attachment Applications "Batching":** Washington State regulations stipulate that the 45 day review timeline applies to all applications of 300 or fewer poles.<sup>11</sup> This resulted in PSE receiving multiple batches of applications of 300 poles or less, which in reality are part of a single, larger deployment with no indication that they belong to the same project. As these small-batch applications come in, they get assigned to the next available engineer or engineering technician, which leads to multiple field inspections and other duplicate review work, rather than a coordinated review. It is our applicants that are creating inefficiencies in order to get around regulatory limits.

**Inefficiencies Related to Cancellations:** Shorter timeframes will not address the number of applications that get reviewed, approved and surveyed for make-ready work, only to be cancelled by the customer;

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<sup>7</sup> WAC 480-54-030 (11).

<sup>8</sup> 47 C.F.R. § 1.1403(b).

<sup>9</sup> A copy of PSE's *Application for Attachment* forms are located in Appendix A.

<sup>10</sup> Example: Vendor data sheet for proposed fiber, listing multiple fiber sizes, with no indication which size is being proposed.

<sup>11</sup> WAC 480-54-030 (6).

many of which start as “expedited” requests. Project cancellation rate in 2016 was approximately 14% in PSE service territory.<sup>12</sup>

***Shorter Timelines are Unlikely to Speed Access as Estimate Delays Exist for Both Parties.***

The reality of the current state of joint-use in PSE service territory is that delays occur with both parties; not just utility-pole owners.

PSE has a state mandated timeframe to provide a cost estimate for make-ready or pole replacement work within 14 days.<sup>13</sup> Communication Companies are then given 30 days in which to accept or decline the estimate.<sup>14</sup> Currently neither PSE nor the Communication Companies are fully meeting these deadlines for the reasons detailed below.

***Shortening Make-ready Timelines from 60 Days to 45, or even 30, Days is Not Realistically Possible in the Current Joint-Use Environment Given Safety and Reliability Concerns, Issues of Jurisdictional Permitting, and Constraints on Workforce Availability***

Proposals to shorten make-ready timeframes are a concern as they do not fully account for the construction environment that PSE and other energy utilities operate in. PSE is further concerned that shorter timeframes to conduct make-ready work could impact safety and reliability. Reducing timeframes often has the result of forcing people to rush or over work. That may be effective over a short period, but it is not sustainable. Rushing when the work environment is extremely dangerous is not conducive to the safety of our crews or to the safety of the public we serve.

While efficiencies have been gained, PSE does not currently complete all make-ready work within the 60 day timeframe. Jurisdiction permitting is the primary reason as the average time for processing permits by jurisdiction agencies has gone from four weeks to eight weeks or more.

Another factor causing delays is the availability of line-crew resources. Average scheduling for our service providers has historically required four weeks of lead time. In recent experience with our service providers, scheduling lead times can run as high as six weeks or more during primary construction season. This issue cannot be easily solved by adding more resources, because qualified journeyman linemen are limited resources,<sup>15</sup> who follow greatest opportunity for steady work. When available work is cyclical – as it is with communications projects – they go where the steadiest work is.<sup>16</sup> Over the past three years, PSE has seen our availability of crews of qualified linemen drop to 43, from 68, representing 36% reduction in resources.

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<sup>12</sup> This information comes from a PSE query of the National Joint Utilities Notification System (NJUNS) and from PSE contractor data on make-ready work.

<sup>13</sup> WAC 480-54-030 (5).

<sup>14</sup> WAC 480-54-030 (5)(a)

<sup>15</sup> Training requirements and timeframes for line crews have become far more stringent and longer. It takes five to seven years to qualify a journeyman lineman, versus maybe six months for a communications installation worker. Equipment costs are also higher; electric linemen have to operate very specialized equipment designed to operate around high voltage conductors and energized equipment. Conversely, installation of communications coax and fiber is known to have been performed from a pickup truck or panel van.

<sup>16</sup> In PSE’s experience, crews have relocated to Southern California as Southern California Edison crews work to replace 20,000 to 30,000 distribution poles per year as result of the Malibu Canyon fire (which was attributed to distribution poles having failed in high winds due to being overloaded by communications attachments <sup>See CPUC Press Release, Docket#: I.09-01-018, <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M077/K126/77126214.PDF>, Para. 3</sup>).

### ***Perspectives on the Proposed Use of Utility-Approved Contractors for Make-ready Work:***

Typically, PSE does not perform make-ready work in the Communications Space except for relocation of simple through bolted attachments. There is no need on PSE's part to establish a list of contractors approved to perform Communications Space make-ready work as attaching entities are already free to select whomever they want. In fact, there is a potential liability-risk to PSE if it were to do this.

PSE performs make-ready work in the Supply Space, much of which is the result of Communication Companies either not working together or installing attachments out of code-compliance and not willing to make the necessary corrections. PSE opposes rulemaking proposals which would extend practices designed for work in the Communications Space to apply in the Supply Space, including proposals to allow telecommunication companies the right to select contractors and direct their work in the Supply Space. The following are just a few of PSE's concerns:

- Design and construction standards and work practices<sup>17</sup> vary between utilities. Line crews need to be familiar with those standards, practices and protocols.
- The competitive nature of the communication industry results in bidder selection based primarily on price rather than quality and safety qualifications, including appropriate knowledge and understanding of applicable National Electric Safety Code ("NESC") requirements.
- Among electric utilities, telecommunication companies have earned a reputation of low trust. Examples,<sup>18</sup> which foster it are:
  - The regular occurrence of attaching incorrectly;
  - The recent practice<sup>19</sup> of installing wireless modules – both strand mounted and pole mounted – without application or notification;
  - Practice of trying to deceive the pole owner on pole type to avoid costs;
  - High error rate on pole attachment applications;
  - Providing wireless construction drawings for a utility-pole site which fail to show existing utility facilities.
  - Accessing substation property to trench-in fiber to a cell site without notification – including digging up and cutting the station perimeter ground ring;

### ***PSE Welcomes the Discussion Over the Concept of "One Touch" for Pole Transfers and Make-ready Work***

PSE has no objection to a single contractor performing all transfer or make-ready work in the Communications Space. In fact, PSE as utility-pole owner, would likely welcome such a practice as it could address some of the issues discussed above which we believe are a significant barrier to faster deployment of broadband service. PSE would be interested in discussing how "one touch" might be extended to make-ready work in the Supply Space should the topic undergo a detailed evaluation and analysis.

### ***Perspectives on Post-Make-ready Timelines and the Anti-Competitive Issue of Requesting Entities Failing to Pay for Post-Inspections***

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<sup>17</sup> Example: switching coordination between System Operations and the crews.

<sup>18</sup> These examples were experienced in PSE service territory.

<sup>19</sup> In PSE service territory, this practice is attributed by PSE to Comcast.



The proposed 30 day post-construction inspection window appears to be of reasonable length. However, PSE believes the overall proposal overlooks a couple of critical conditions existing in the joint use environment:

- PSE is unable to determine when the contractor has completed their installation. For the past few years PSE has been asking the Communication Companies to provide notification through the National Joint Utilities Notification System (NJUNS) network of their completion date. This is rarely, if ever done.
- The very strong resistance on the part of Communication Companies to pay for post-construction inspection.

In practice, PSE conducts a pre-construction inspection of poles due to the high volume of poor quality applications it receives from requesting Communication Companies. Any post-construction issues, such as installations in violation of NESC requirements or non-compliance with approved location or direction from the pole owner, do not get identified until the next attaching entity submits an application.

Communication Companies have historically failed to pay invoices related to post-inspection costs. Their failure to pay for post-construction inspections – and prevalence of non-compliance of attachments – has unfairly shifted the costs of non-compliance (and potential delays in performing the next round of make-ready work) from the Communication Company to the next applicant. PSE believes that the authority of utility-pole owners to apply penalty fees to telecommunication companies for non-compliance may help offset this problem.

***Other Pole Attachment Process Proposals: PSE Perspective on Penalty Fees, Bonuses, and Availability of Pole Information***

**Penalty Fees:** The Commission seeks comment on the “reasonableness” of applying \$500 penalties to “[...] existing attachers failing to meet the 45 day deadline.”<sup>20</sup> PSE supports the concept of penalty fees and believes that penalties for make-ready non-compliance are the only practical way to incent Communication Companies to perform required make-ready work in a timely manner. Without conducting a further analysis of the associated costs for failing to meet the 45 day deadline PSE is unable to comment on the appropriateness of the \$500 figure proposed, but would be willing to conduct that assessment should penalties be deemed appropriate.

One potential reason for Communication Companies failing to meet the 45 day make-ready timeframe is the imbalance of incentives between the pole owning utility and the existing Communication Company. The pole owning utility gains no competitive advantage by delaying make-ready work for a new attachment, but the existing Communication Company attachment may create a barrier to entry for a new applicant. Since pole owning utilities operate without authority to hold existing attached entities, such as ILECs, responsible for meeting required make-ready deadlines, the utility is unable to expedite the process.

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<sup>20</sup> See NPRM, Section 1 (b) (25)

**Bonuses:** The concept of creating a “bonus”<sup>21</sup> is one that sounds feasible, but is likely impractical in application.<sup>22</sup> Addressing the Commission’s questions in the NPRM, PSE seeks clarification on the following:

- Who assesses when the bonus is due?
- Who collects and disburses the bonus payments?
- What if only a portion of the existing attached entities chose to participate?
- What is the basis for expecting competing entities to cooperate if a reward is ill-defined?

**Availability of Pole Information:** The concept of a detailed pole information database may look good on paper but is not practical in the current state of joint use.

PSE already keeps some of this information in our mapping database. The electric utility has a process for applicants to request copies of our maps. PSE provides Communication Companies with maps and some information on poles, but places some administrative limits on excessive map requests. PSE maps do not provide information as to the physical condition of the pole, numbers of attachments by Communication Companies or amount of space available for attachment. PSE does not collect this information; if it did, it would quickly become outdated. Keeping such a database would require a very large number of utility resources with little obvious benefit to the utility. Instead, Communication Companies requesting an attachment to a PSE pole are encouraged to conduct their own visual assessments before contacting PSE.

## **2. Re-Examining Rates for Make-Ready Work and Pole Attachments**

### ***Reasonableness of Make-ready Costs and Implementation of Fixed Fee Schedules***

Through experience in the joint-use space, PSE believes that there is confusion, or a difference of opinion, on the part of telecommunication companies and utilities alike on the definition of “make-ready.” Make-ready work consists of those actions or activities that can create additional vertical space on an existing pole. For Supply Space make-ready, these generally fall into well-defined work descriptions. Most commonly, this work is: raising drip loops, service drops and streetlights, installing streetlight moldings, removing spool racks, extending risers, and upgrading or adding guying/anchoring on transmission poles.<sup>23</sup>

**Pole replacement is unique work and by definition is not make-ready work; it should not be subject to any fixed fee schedule of costs.** Pole replacement will vary considerably due to type of pole (distribution or transmission), location of pole (Right of Way (“RoW”) set up limitations, back yard poles, soil type, etc.), and existing facilities already on the pole. To provide the Commission with some perspective, the following data from PSE’s service territory details the volume of pole attachments requests received in 2016 and the variability of work required to fulfil the requests:

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<sup>21</sup> As proposed in NPRM, Section 1 (b) (26)

<sup>22</sup> PSE is unaware of detailed studies or programs which incent required make-ready.

<sup>23</sup> Only upgrading or adding guys offers a degree of uncertainty of cost as many times it requires for the pole owner to obtain easements.

- PSE received 807 applications for pole attachment.
- These applications covered a total of 17,757 poles.
  - 2,945 or 17% of these poles required some form of Supply Space make-ready; the majority of which is “common” work.
  - 209 poles required replacement.

**PSE does not object to fixed fee schedules of cost for “common” make-ready work**, but does recommend that any such schedule be determined by the parties themselves and not the FCC. We believe that our practice of providing cost estimates, charging to a job work order number and then billing the actual cost to the Communication Company produces the greatest benefit to them.

***Perspectives on Reducing Make-ready Costs and Allocating Costs on the Basis of Who Benefits.***

PSE agrees with the Commission that the pole owner is only entitled to recover those costs which are attributable to work necessary to accommodate an attachment request. As stated above, PSE provides estimates and bills based on actual cost. However, what we have also experienced is the customer approving the work and then delaying payment, further exasperating resources and associated cost impacts.

**PSE does not support the concept of allocating costs based on some determination of “benefit.”** In the current state of joint-use, this concept will prove extremely difficult to track and account for and will also discourage the practice of designing in extra capacity for future needs of attaching communications entities.

The practice now for PSE is installation of 45 foot poles when we perform system upgrades, pole relocations or age-related pole replacements.<sup>24</sup> A 45 foot pole provides for extra Communications Space with very minimal cost.<sup>25</sup> There is no real benefit to the utility other than to reduce future Communication Companies’ attachment related work load. However, it is a great benefit to attaching Communication Companies as it lowers their costs by reducing the need for make-ready work and avoiding potential future costs of pole replacement at time they request a pole attachment.

It is PSE’s practice to design extra capacity when collocating wireless macro-site facilities. PSE usually includes “future” loading, either for an additional carrier or for modifications and upgrades. When this “future” capacity is utilized by a second Communication Company, PSE requires the second entity to reimburse the first Communication Company for a portion of the engineering and construction cost. This practice has resulted in significant savings to the Communication Companies in our service territory.

PSE has a requirement that any transmission pole being replaced is designed to our current transmission line design standard. This benefits attaching Communication Companies as it avoids need to replace the pole at a later date to accommodate a line upgrade.

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<sup>24</sup> Often times, when replacing poles for PSE-related reasons (deterioration, re-conductor, etc.), PSE must replace the pole with a taller pole to remedy existing clearance violations caused by the Communication Company failing to meet clearance code when they previously attached.

<sup>25</sup> The only additional cost is the “cost of wood” without any additional labor or installation cost.



The reality is that Communication Companies benefit far more than the pole owner whenever the pole owner designs for future loading.

***Pole Attachment Rates for ILECs: Perspectives and the Experience in PSE's Service Territory***

PSE applies the cable television rate to all attached entities in the Communications Space, yet this issue continues to generate considerable challenges for PSE. Existing ILEC contracts stipulate that rates are predicated on use of up to two feet of space on the pole.

PSE does not conduct spot audits for ILECs,<sup>26</sup> however it believes the current average of two feet of space per pole represents an under-recovery for the actual pole space ILEC attachments occupy in the field.<sup>27</sup> To further exacerbate the issue, on multiple occasions PSE has received only partial payment of the annual pole attachment rate from ILECs in protest of their negotiated rate.

PSE acknowledges that joint use relationships and conditions between utilities and ILECs are not uniform across the country. However, what may be appropriate in PSE's service territory may not have any relevance in another area. In PSE's territory, an ILEC has little advantage over CLECs and CATV operators, other than the potential to create barriers to others as existing attached entity. On the other hand, the ILECs are burdened by provisions of service requirement, which their competitors do not operate under. Previous advantages that ILECs had have diminished with time due in large part to their reduced pole ownership.

ILECs not investing in their pole plant has resulted in PSE paying for replacement of ILEC-owned poles and, per the terms of our agreements, has caused PSE to take ownership of the poles. PSE currently owns 90% of the poles to which our facilities are attached, or approximately 325,000 poles throughout our ten county service territory.

We believe that the primary objective of rate complaints is to reduce telecommunication companies' costs of deployment, which inevitably comes at increased cost to the utilities required to maintain poles. PSE believes that lowering ILEC rates does little more than create a subsidy for telecommunication companies at the expense of electric utilities' customers. The telecommunication companies' complaints are not based on any evidence of double recovery or unreasonable rates.

**3. Joint-Use from the Utilities' Perspective: The Real Barriers to Competition and PSE's Perspective on Faster Deployment of Broadband Services**

PSE experiences a number of reoccurring issues when a Communication Company requests an attachment to a pole:

- a) Failure of the Communication Companies to transfer attachments within allotted time.
- b) Communication Companies are slow in performing make-ready work to create additional space; which leads the utility-pole owner to create space by rearranging their facilities.

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<sup>26</sup> There is little support from attached communications companies for conducting a pole attachment audit, which would settle any points of dispute.

<sup>27</sup> Based on spot audits, PSE determined that cable television ("CATV") and the CLECs average approximately 1.5 attachments per pole they are attached to.

- c) Communication Companies attach in a non-compliant manner, forcing the next attaching entity to pay for corrective actions or delaying attachment while the pole owner tries to get the previous entity to correct deficiencies.
- d) Communication Companies abandoning facilities in place, which leads to overloaded poles that the next attaching entity pays the cost to replace.

As mentioned earlier, existing Communication Companies have little to no incentive to complete their make-ready work as it speeds deployment timeframes for their competitors. The pole owner has little leverage over existing Communication Companies to get them to perform this required make-ready work.

In addressing each of these four reoccurring issues under the current state of joint-use, utility-pole owners are prohibited from freezing new applications from noncompliant entities.<sup>28</sup> Neither are they allowed to impose a penalty fee to try and force action. This leaves the only alternative for utility-pole owners to do the corrective work themselves, if possible. In effect, this ultimately shifts the cost of non-compliance from existing attachment entities to new applicants.

***a) Failure to Transfer Within Allotted Time***

PSE does not currently have an aging report, which would allow it to track how long individual pole transfers take; however, we do track overdue transfer tickets. As of May 30, 2017, the current number of past due tickets – i.e. those tickets where a Communication Company has been notified to transfer facilities and has not done so within a contractual timeline of 30 days– is 1,450 tickets. The current number of tickets is up from 1,137 past-due tickets, which remained open at end of 2016; and includes transfers driven by utility work as well as Communication Companies work. In context, on May 30, 2017 PSE had total of 3,190 open tickets. The Communication Companies' over-due tickets, thus, represent 45% of the total number.<sup>29</sup>

***b) Slow on Performing Make-ready Work to Create Additional Space***

Today, most make-ready work takes place in the Supply Space. Not because the pole owner requires it, but because in the practice of creating vertical space it may be quicker to adjust attachments in the Supply Space to accommodate a new attachment in a shorter timeframe due to delayed responses by Communication Company or non-compliance.<sup>30</sup>

Often, the non-compliant attachment requiring work is not discovered until the next pre-construction inspection is carried out. Unless the pole owner inspects post-construction, the most likely occurrence for discovery is during pre-construction inspection on the next application, which pushes the cost of correcting the non-compliant attachment to the next requester because it often takes too long to get the existing attached Communication Company to correct the non-compliant attachment.

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<sup>28</sup> 47 U.S. Code § 224 (f)

<sup>29</sup> See Appendix B.

<sup>30</sup> This work may be performed in the Supply Space by PSE to create vertical space because of slow Communication Company work or non-compliance. In some cases, the non-compliant Communication Company also refuses to pay the invoice.

The result is that an entity that does not comply can deploy at lower cost (they hire the lowest bidder, potentially without concern of substandard work), while at the same time increasing the cost (and subsequent timeframes) to the follow-on attaching entity. PSE Believes these non-competitive practices by existing telecommunication companies will continue to increase costs and delay timelines if left unaddressed by the Commission.

*c) Non-Compliant Attachments Shift Additional Costs to the Next Attaching Entity*

As stated above, non-compliant attachment is often not discovered until the next pre-construction inspection which shifts costs to the next requesting applicant. To better illustrate how unauthorized attachments create barriers to efficiency and slow deployment in practice, PSE observes the following issues in our service territory:

- They occupy space which would otherwise be available to an entity who operates in compliance with the process and agreement terms.
- They are often attached out of compliance with code, which usually results in the pole owner having to make corrections.
- Requires the pole owner to track down ownership of an unreported or abandoned attachment.

*d) Abandonment of Communication Company's facilities in place, leads to overloaded poles that the next attaching entity then pays for cost of replacement*

The practice of abandoning old plant in place and over lashing new plant to the existing strand and wire is a cost saving measure to the owner of that plant. The impact of abandonment is increased loading on poles; the increase in diameter leads to a corresponding increase in wind and ice loading. With an increasing number of utilities requiring pole loading calculations, the practice of abandonment increases the probability of a pole failing structural review and requiring replacement. Since the review is performed for each new application to attach, the cost of replacement falls on the new requesting entity. PSE views this as another means by which existing communications companies shift cost onto another party.

PSE currently performs custom structural analysis for transmission poles, and intends to extend analysis to all poles. It is justified because Communication Companies no longer maintain the appropriate engineering staff, or their staffs do not consider the issue of pole loading in their designs. After the Malibu Canyon fire – which was attributed to overloaded utility power poles<sup>31</sup> – any utility not addressing structural loading in evaluating pole attachments is remiss in their responsibilities.

*The Lingering Issue of "Double Poles" Due to Communication Company Noncompliance*

"Double poles", where a pole has been replaced but the old stub pole is still in right of way creates serious issues for the pole owning utility and local permitting jurisdictions.

- Safety issue: having the old, cut down pole next to the new pole creates a falling hazard for any lineman climbing the pole.
- Double poles create a larger "target" for drivers to hit. On average, over 600 cars hit PSE poles each year.

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<sup>31</sup> See footnote 16.



- They can block access to space on new pole for other attaching entities.
- Prevents pole owner from closing out municipal RoW permits on projects.
- Municipalities have placed holds on issuing new RoW permits for utility work due to previous unclosed RoW permits, caused by failure of Communication Companies to perform their work in a timely manner.

As of May 30, 2017, PSE maintains 2,818 double poles, which cannot be removed due to existing Communication Companies attachments that are still attached beyond their allotted transfer time. There are more than three times as many non-compliant double poles then double poles which are within the allotted transfer time.<sup>32</sup>

### *Proposals to Improve the Process*

PSE data demonstrates that in the current state of joint-use a significant portion of the “problem” with pole attachments lies out of the utility-pole owner’s jurisdiction or control. For this reason, PSE is concerned with the rule proposals that penalize the utility-pole owner but do not address the underlying non-compliance issues by telecommunication companies attachments. PSE offers the following suggestions:

**Better planning and management on the part of attaching entities:** Utilities are not designed to ramp resources up and down on short timeframes for reasons already referenced. PSE infrastructure planning has lead times on the order of 5 to 20 years. Communication Companies may change their annual build plans several times over the course of a year. Until the incoming flow of work can be presented to utilities in a predictable manner and then competently completed by applicants, utilities will struggle with the discrepancy between available utility resources; and variable attachment work load; and quality of work we currently see.

**Additional opportunities for reducing cost of deployment.** PSE allows our service providers to directly invoice Communication Companies, even though the work is performed under PSE supervision. This practice represents a considerable cost savings to the customer through avoidance of overhead charges on labor. PSE is also in the process of developing coordination procedures and communicating standards to the ILECs in our area for small cell deployment where a percentage of cell nodes in a ring are on poles they own but which support PSE distribution facilities. This is expected to allow for faster make-ready and pole replacement response times and more efficient use of resources, while assuring uniform safety and reliability standards.

**Institution of non-compliance penalty fees:** If a pole owner is not permitted to freeze applications<sup>33</sup> from telecommunication companies that fail to abide by the terms of the agreements they signed, then the only option remaining is to make non-compliance more costly. Without this option, utility-pole owners have zero leverage to force existing entities attached to our poles to abide by the terms and conditions of their approved application and by the governing pole attachment agreements. Either method: freezing review of applications or imposing non-compliance penalties, will help in eliminating the issues of: failure to transfer, unauthorized attachment, and attaching in violation of the code or permit conditions. By requiring every telecommunication company bear their fair share of costs – by meeting the obligations

<sup>32</sup> PSE has, on inventory, 3,658 double poles as of May 30, 2017. Of these poles, 840 are ready to pull and Communication Companies are past due and out of code-compliance on the remaining 2,818 (77%) of double poles.

<sup>33</sup> 47 U.S. Code § 224 (f)

of existing agreements and standards – utility-pole owners may assist in the Commission’s goal to speed the transition to next-generation networks and services, without burdening costs.

It is requested that the Commission consider all the facts, which contribute to increased cost and delays for pole attachments – and their underlying reasons – before placing mandates, restrictions and undue burdens on the utility-pole owners. The rulemaking needs to consider both “downstream” and “upstream” causes and effects. It needs to balance requirements with responsibilities for all parties.

### **III. EXPEDITING THE COPPER RETIREMENT AND NETWORK CHANGE NOTIFICATION PROCESS**

Historically, utilities employ low speed analog data circuits for remote terminal unit (“RTU”) connections into their energy generation and storage, transmission and distribution control systems. Some communicate on older bit-based protocols over point-to-point leased circuits, which are incompatible with higher-speed byte-based packet protocols. Upgrading to internet protocol (“IP”) is not just a simple matter of replacing a communications device (modem) for a new one that handles higher speed. It may, and does frequently, mean that the control system has to be updated or replaced.

PSE monitors its energy control operations with remote Supervisory Control and Data Acquisition (“SCADA”) systems with over 600 RTUs. Many of the RTUs have been in place with telecommunications four-wire leased-line (copper) connectivity for decades.

The utility industry adopted packet based internet protocol as the standard for IP SCADA<sup>34</sup> and industry-wide upgrades are taking place. PSE has a \$26 million, five-year project<sup>35</sup> to update 260 electric substations’ RTUs via IP SCADA; a prudent and achievable timeframe for the upgrade. In many cases, this requires the replacement of not just the telecommunications leased circuit, but also the RTU, so that new IP compatible protocol can be used.<sup>36</sup> However, this does not include PSEs gas monitoring system with over 300 code-grandfathered RTUs, which continues to meet PSE’s needs today. The gas RTU connectivity will also require replacement of the RTU and upgrade of the installations to current codes.<sup>37</sup> The cost and duration of the project is likely to be similar in scope to the electric RTU project, and reliant on the same telecommunications department personnel.

Changing current RTUs to IP requires compliance with North American Electric Reliability Corporation (NERC) critical infrastructure protection cyber security standards.<sup>38</sup> This requires additional networking and security equipment (firewall). All of these issues and requirements add significant costs, which are in addition to circuit redesign costs.

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<sup>34</sup> Supervisory Control and Data Acquisition utilizing Internet Protocol for connectivity.

<sup>35</sup> Expected completion 2021.

<sup>36</sup> Older bit-based data protocols are not compatible with byte-based IP protocols.

<sup>37</sup> These may include: Local and International Building Codes, National Electrical Code, Washington State Labor & Industries codes (regulations of substations), other regulatory codes; and, company safety standards and industry regulations, such as, North America Electricity Reliability Corporation (“NERC”), Federal Energy Regulatory Commission (“FERC”), American Gas Association, Underwriters Laboratories (“UL”), Family Mutual Research Corporation (intrinsically safe certifications), etc.

<sup>38</sup> NERC Cyber Security Standards, CIP-005-5, CIP-006-6, CIP-007-6.



PSE has committed to IP SCADA, but due to number of locations, required engineering, cost, and lack of hazardous-areas (substations and gas installations) telecommunications personnel, the transition is being done over years; based on the company's capability (capacity) to do the upgrades safely, and for safety and reliability to customers.

By some definitions IP services may be viewed as "compatible" service to copper data service. From the perspective of SCADA leased circuits extensively used by utilities, these "compatible"<sup>39</sup> services are not compatible with the existing RTU equipment, data protocols or its regulatory requirements.

#### IV. STREAMLINING THE SECTION 214(a) DISCONTINUANCE PROCESS

PSE understands the Commission's desire to remove barriers to, and promote investments in, infrastructure modernization. However, we see some of the proposals and timeframes in the NPRM as a possible mandate for customers (including PSE) to – unreasonably quickly – fund upgrade of equipment and systems (of customer equipment), in order to limit telecommunications companies' costs with legacy copper services<sup>40</sup>.

Under the NPRM proposals, current services could be "grandfathered"<sup>41</sup> and these grandfathered services could then be discontinued in 90-180 days. It is impractical that hundreds of circuits can be budgeted, redesigned, and equipment procured, installed, configured and tested<sup>42</sup> within the proposed timelines.

PSE has committed to transition to IP SCADA in reasonable, safe and reliable manner. Due to number of locations, required engineering and changes, cost, and lack of hazardous-areas (substations and gas installations) telecom personnel, the transition is being done at the best sustainable pace. There is a finite number of qualified staff with specific utility-telecomm expertise. While it may be suggested that knowledgeable telecommunication personnel would be available from telecommunication companies (as a result of discontinuation of these services), these personnel do not have the utility specific skills to take up the sudden temporary demand.

Utilities' energy management and SCADA systems were built over decades by relying on regulated, tariffed services. Not since Y2K<sup>43</sup> and the LMR<sup>44</sup> Narrowbanding<sup>45</sup> mandate have utilities seen a potential ground-shift of required changes, with a potential impact (within a very short timeframe<sup>46</sup>) as the proposals contained in the NPRM. This is especially true with the discontinuance provisions. With Y2K and LMR Narrowbanding, utilities had many years to plan, budget, engineer solutions, prepare and

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<sup>39</sup> See *Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment*, WC Docket No. 17-37, para. 87.

<sup>40</sup> *Id.* Para. 60.

<sup>41</sup> *Id.* para. 73.

<sup>42</sup> Safety and reliability requirements mandate that every single point and control has to be physically tested when changes are made to any RTU.

<sup>43</sup> Perceived Year 2000 two-digit date rollover bug.

<sup>44</sup> Land Mobile Radio

<sup>45</sup> *Second Report and Order and Further Notice of Proposed Rule Making*, WC Docket No. 99-87, RM-9332, (February 25, 2003)

<sup>46</sup> See *Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment*, WC Docket No. 17-37, paras. 85-88.

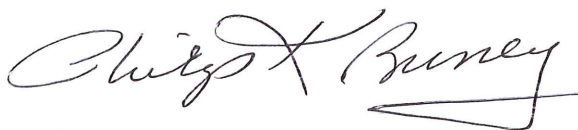


execute solutions<sup>47</sup>. The proposals in the NPRM, while potentially equally impactful and costly, provide virtually no time to prepare for the service discontinuance of these critical services.

\* \* \*

Puget Sound Energy, Inc. appreciates the opportunity to comment on this Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment and looks forward to continuing to work with the Commission on this the acceleration of broadband deployment. Should the Commission like to discuss our comments further, please contact Phil Bussey at [Phil.Bussey@pse.com](mailto:Phil.Bussey@pse.com) with any questions.

Sincerely,

A handwritten signature in black ink, reading "Philip K. Bussey". The signature is fluid and cursive, with a large, stylized "P" and "B".

Philip K. Bussey  
Senior Vice President & Chief Customer Officer  
Puget Sound Energy

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<sup>47</sup> In LMR Narrowbanding, the deadline was nearly ten years from the date of the order.

## **Appendix A**

PSE Application for Attachment Forms



Appendix II

## APPLICATION FOR ATTACHMENT

Application or  
Job Number

Date

TO: PUGET SOUND ENERGY  
FROM LICENSEE:

\_\_\_\_\_

REPRESENTATIVE

\_\_\_\_\_

NAME

\_\_\_\_\_

ADDRESS

\_\_\_\_\_

EMAIL/PHONE #

\_\_\_\_\_ / \_\_\_\_\_

Please grant permission to occupy your poles in accordance with the conditions set forth in Pole Attachment Agreement, dated \_\_\_\_\_.

☐ Application for rental on \_\_\_\_\_ poles.

☐ Termination for rental on \_\_\_\_\_ poles.

### DESCRIPTION OF WORK:

CABLE

overlashing

new cable

POLES

☐  
☐  
☐

PSE Universal maps attached with requested poles highlighted.

Licensee's work sketch showing at least 95% of PSE grid numbers is attached.

List of grid numbers is attached.

POWER SUPPLIES

\_\_\_\_\_ will be installed. Pole list is attached and power supply specifications are included.

Failure to supply requested information may delay acceptance of the application.

☐  
☐

Application or notification accepted.

Billing of new contacts to be effective \_\_\_\_\_

LICENSOR PUGET SOUND ENERGY  
BY

PSE Engineer

Date



Appendix 'A' (Company & Job Name) (5/7/09)															Always treat and plug all holes when plant is moved.	Always treat and plug all holes when plant is moved.	Always treat and plug all holes when plant is moved.
PSE Pole Number	Pole Type T/D	Pole Owner	PSE U- Map	Location	City/Area	Neutral Height	Secondary	Street Light	CATV	TelCo	Fiber	Requested Applicant Attach Height	Make- Ready Needed	CATV Notes	TelCo Notes	Fiber Notes	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
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21																	

## Appendix B

Over Due Transfer Requests as of May 30, 2017

Source: *National Joint Utilities Notification System ("NJUNS")*

Pole Contact	PAST DUE AS OF 12/31/16	PAST DUE AS OF 3/31/17	PAST DUE AS OF 5/30/17	Comments
Company with Past Due Make Ready Work	34	23	25	
	97	134	183	
	8	5	5	
	141	170	199	
	9	9	9	
	15	20	20	
	3	6	5	
	684	740	784	
	34	70	95	
	5	7	8	
	29	17	16	
	69	79	91	
	3	4	4	
	6	9	6	
Totals	1137	1293	1450	

Open Tickets by Service Area				
		Poles	Tickets	
		721	234	Northern (Whatcom, Skagit, Island Counties)
		461	170	North King County
		506	215	South King County
		316	114	Pierce County
		291	82	Thurston County
		523	197	Kitsap County
Total Open Tickets	3830	2818	1012	